

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION of

Byung-hee Kim et al.

Attn: Applications Branch

Division of Serial No.: 09/198,374

Attorney Docket No. SEC.467D

Filed: March 8, 2001

For: FERROELECTRIC RANDOM ACCESS MEMORY DEVICE AND FABRICATION
METHOD THEREFOR

PRELIMINARY AMENDMENT

Honorable Assistant Commissioner
of Patents and Trademarks,
Washington, D.C. 20231

Date: March 8, 2001

Sir:

Preliminary to the examination of the above-identified application, please enter
the following amendments and remarks.

In The Specification:

Kindly amend the specification as follows:

Page 1, between lines 4 and 5, insert

--CROSS REFERENCE TO RELATED APPLICATIONS

This is a divisional application of application Serial No. 09/198,374, filed
November 24, 1998, which is hereby incorporated by reference in its entirety for all
purposes.--

Replace the paragraph beginning on page 8, line 3 with the following paragraph:

"A transistor including a gate 104 formed by interposing a gate insulating layer 102 on a semiconductor substrate 100, a source region 106 and a drain region 107, is formed. An interlayer insulating film 108, preferably composed of a material selected from phosphosilicate glass (PSG), borophosphosilicate glass (BPSG), tetraethyl orthosilicate (TEOS) and undoped silicate glass (USG), is deposited on the entire surface of the substrate 100 in which the transistor is formed. A contact plug 110 formed in the interlayer insulating film is in contact with the source region 106 of the transistor. A lower electrode 112 is formed on the contact plug 110."

Replace the paragraph beginning on page 13, line 19 with the following paragraph:

"Here, the lower seed layer 114 and the upper seed layer 118 are formed of a material which induces the ferroelectric layer 116 to be crystallized into a uniform and stable perovskite structure throughout the ferroelectric layer during a thermal treatment so that the characteristics of the upper and lower interfaces of the ferroelectric layer 116 are made to be the same."

In the Claims:

Please cancel claims 1-12 without prejudice.

REMARKS

By this Preliminary Amendment, the specification has been revised to identify the parent application, and non-elected claims 1-12 have been canceled. Claims 13-20 are pending in this application. Entry of this Preliminary Amendment is respectfully requested.

In the event that there are any outstanding matters remaining in the present application, the Examiner is invited to contact Andrew J. Telesz, Jr. (Reg. No. 33,581) at (703) 715-0870 in the Washington, D.C. area, to discuss these matters.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 50-0238 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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Enclosures: Version with marked-up copy